

U.S. Army Center for Health Promotion and Preventive Medicine

A SOLDIER'S GUIDE TO STAYING HEALTHY IN THAILAND

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Table of Contents

	Page
INTRODUCTION.....	1
THAILAND OVERVIEW.....	2
THAILAND RISK ASSESSMENT.....	2
DISEASES OF GREATEST RISK.....	2
VECTOR-BORNE DISEASES.....	3
FOODBORNE AND WATERBORNE DISEASES OF POTENTIAL RISK.....	4
WATER-CONTACT AND SKIN DISEASES.....	4
HAZARDOUS ANIMALS AND PLANTS.....	5
HOT AND COLD WEATHER INJURIES.....	5
RESPIRATORY DISEASES AND SEXUALLY TRANSMITTED DISEASES.....	6
TOXIC INDUSTRIAL CHEMICALS AND MATERIALS.....	6
HIGH ELEVATIONS.....	6
HEARING PROTECTION.....	7
ORAL HEALTH.....	7
FIELD SANITATION TEAM.....	7
PRE-DEPLOYMENT HEALTH INFORMATION.....	7
INFORMATION ABOUT YOUR HEALTH CARE WHILE DEPLOYED.....	8
POST-DEPLOYMENT HEALTH INFORMATION.....	8

INTRODUCTION

This country-specific guide should be used in conjunction with [GTA 08-05-062, Guide to Staying Healthy](#), and is intended to provide information that can help reduce your risk of Disease and Non-battle Injuries (DNBI) when deployed. This health threat and countermeasure information is based on the most current data available from U.S. Department of Defense medical agencies at the time of production. In addition to the information in this guide, you should also receive force health protection, health threat, and preventive medicine countermeasures training/briefings prior to and, as required, throughout the length of your deployment.

THAILAND OVERVIEW

[Thailand](#) is slightly larger than California and is located in Southeastern Asia. The borders of the country include the Andaman Sea and the Gulf of Thailand, Burma, Cambodia, Laos, and Malaysia. Thailand is divided into five geographic regions. The first area is the southeast coast. It is a low fertile plain separated from the central valley by low mountains. The second area is the northeastern plateau, or Korat Plateau. It occupies one-third of the nation and is a rolling tableland with elevations of about 122 to 213 meters (400 to 700 feet). This area borders Laos and Cambodia. The third area is the northern and western mountains with peak elevations up to 2,590 meters (8,500 feet). These mountains have recently been subjected to widespread deforestation. The fourth area is the Central Basin, which encompasses 25 percent of the land area. It is the most heavily populated area and dominates the country economically. The fifth area is peninsular Thailand. This area occupies the northern portion of the Malay Peninsula between Burma and Malaysia.

Thailand has a tropical monsoonal climate. In most regions, four distinct seasons exist: dry during January and February, hot from March through May, wet from May through October, and cool during November and December. Temperatures rarely fall lower than 13° C (55° F) or rise higher than 35° C (95° F). Rainfall varies from 1,020 millimeters (mm) (40 inches) in the northern highlands and the Korat Plateau to 3,050 mm (120 inches) in the western mountains and southern peninsula. Heavy rains associated with the twice yearly typhoon periods frequently cause flooding. The dry season is most pronounced in the northeast (Korat Plateau).

THAILAND RISK ASSESSMENT

Based on a combination of all major infectious (contagious) diseases that occur in a country, an [overall country risk level](#) is assigned. Countries can be rated as low, intermediate, high, or highest risk. Thailand is HIGH RISK for infectious diseases. Infectious diseases could affect mission effectiveness unless force health protection measures are followed. In addition, environmental contamination may present short- and long-term health risks to personnel deployed to Thailand. This guide discusses specific disease and environmental risks and ways to eliminate or lessen those risks.

DISEASES OF GREATEST RISK

[Bacterial diarrhea](#) (travelers' diarrhea) is a food- or water-borne disease that is contracted when you eat food or drink water, ice or milk contaminated with the disease. The risk of contracting bacterial diarrhea occurs year-round. All water and food not approved by the U.S. military should be considered contaminated.

[Hepatitis A](#) is a food- or water borne disease that can make you sick for a month or more. The disease is contracted when you eat food or drink water, ice or milk contaminated with the disease. The risk of contracting bacterial diarrhea occurs year-

round. Receiving the Hepatitis A vaccine can eliminate the risk of contracting Hepatitis A.

[Hepatitis B](#) is a sexually transmitted disease that affects your liver. Hepatitis B is a serious disease caused by a virus that attacks the liver. The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. Receiving the Hepatitis B vaccine can eliminate the risk of contracting Hepatitis B.

[Dengue fever](#) is a serious disease that is contracted from the bite of a mosquito carrying the virus. The risk for contracting dengue fever occurs all year but is higher during the warm, wet months of May through October. You can contract the disease anywhere in the country but your risk is highest in urban areas. Mosquitoes carrying the disease often breed in containers of water. It is important to keep all water containers covered whenever possible.

[Malaria](#) is a serious illness that is contracted from the bite of a mosquito carrying the disease. The risk for contracting malaria occurs all year but is higher during the warmer, wetter months. You can contract the disease anywhere in the country, but your risk is highest in rural and jungle areas. It is important to take your anti-malaria medicine as directed.

[Japanese encephalitis](#) is a serious disease that is contracted from the bite of a mosquito carrying the disease. The risk for contracting the disease occurs year-round but is highest during the warm, wet months of May through October. You can contract the disease anywhere in the country, but your risk is highest in rural and suburban areas, especially in areas where there are pigs or waterfowl as they carry the disease as well.

[Rabies](#) is a serious illness that is contracted from the bite of an animal carrying the disease. It is fatal without treatment. Cattle and stray dogs are the main source of rabies in Thailand. You can be exposed to rabies through bites or, more rarely, when infected saliva contacts wounds or moist membranes, such as the nose or eyes.

Information pertaining to how to prevent these and other diseases can be found under each disease category.

VECTOR-BORNE DISEASES

DISEASE RISKS

In addition to malaria, dengue fever and Japanese encephalitis, other diseases of potential risk that are caused by bug bites do exist. These diseases are [Chikungunya](#) carried by mosquitoes, [ehrlichiosis](#) carried by ticks, [mite-borne typhus \(scrub typhus\)](#) and [flea-borne typhus \(murine typhus\)](#). Other diseases spread by various insects and ticks may exist. Your local medical authority will determine if these diseases or other

vector-borne diseases are a threat in your specific location and provide appropriate countermeasures.

PREVENTION

- When deployed to this region, use the [DOD Insect Repellent System](#) outlined in [GTA 08-05-062](#).
 - Wear permethrin-treated uniforms with trousers tucked into boots, sleeves rolled down, and undershirt tucked into trousers.
 - Wear N-diethyl-meta-toluamide (DEET) on exposed skin.
 - When deployed to this region, [sleep under a permethrin-treated bed net](#) to repel insects and further reduce risks of vector-borne diseases. Many insects in this region feed during the night.
 - When using both DEET and sunscreen products, apply sunscreen to the skin first. After 30 minutes to an hour, apply the DEET.
- * Take your malaria prevention medication the way you are told to. This is CRITICAL. Normally, you will begin taking medication before arriving in the area, while in the area, and after returning home.

FOOD-BORNE AND WATER-BORNE DISEASES OF POTENTIAL RISK

DISEASE RISKS

Sanitation is poor throughout the country, including major urban areas. Local food and water sources (including ice) are heavily contaminated with bacteria, parasites, and viruses. In addition to bacterial diarrhea and hepatitis A, other food- and water-borne diseases of lesser risk do exist. These include [brucellosis](#), [protozoal diarrhea](#), hepatitis E and [typhoid/paratyphoid fever](#).

PREVENTION

Assume all non-approved food, ice, and water is contaminated. Do not eat any food or drink any water or beverages (including bottled water) that have not been approved by the U.S. military as they may be contaminated. Even a one-time consumption of these foods or water may cause severe illness. See [GTA 08-05-062](#) for appropriate countermeasures.

WATER-CONTACT AND SKIN DISEASES

DISEASE RISKS

There is a risk of contracting [leptospirosis](#) from swimming or wading in contaminated water. Skin irritations and infections, such as athlete's foot and ringworm, are common medical threats during any deployment. Fungi that thrive in damp conditions commonly cause them.

PREVENTION

- To help prevent contracting leptospirosis, do not swim or wade in water that has not been treated with chlorine.

- If you must be exposed to non-chlorinated water, wear protective clothing and footwear.
- To prevent skin infections, maintain clean, dry skin.
- Never go barefoot.
- See [GTA 08-05-062](#) for additional countermeasure information.

HAZARDOUS ANIMALS AND PLANTS

RISKS

- In addition to rabies, other diseases of potential risk that are contracted through contact with animals do exist. These are [anthrax](#) and [Q fever](#). They are serious illnesses that are contracted from touching or eating infected animals (anthrax) or inhaling dust that contains the organisms that cause the disease (Q fever and anthrax). Cattle, sheep and goats are the main carriers of anthrax and Q fever.
- Monkeys that are allowed to roam freely will bite.
- Leeches are common in freshwater ponds and streams and on plant foliage during the monsoon season.
- There are many venomous cone shells, sea snakes, stonefish, jellyfish, and sharp corals on Thailand's ocean beaches.
- At least 23 species of venomous snakes live in Thailand. The bites of some of snakes can result in death.
- Some centipedes and spiders have a painful bite and scorpions have a painful sting. Some millipedes and beetles can squirt or secrete a fluid that can blister your skin.

PREVENTION

- Do not make contact with animals.
- Consider any snake encountered as poisonous, and do not handle.
- Do not touch any "bugs" on purpose.
- Always check dug-in fighting positions for potentially dangerous animals.
- Try not to inhale dust or dirt that has been inhabited by livestock.
- Clean your skin and clothing after contact with wet foliage or after wading or swimming in freshwater ponds or streams.
- Shake out boots, bedding, and clothing prior to use, and never walk barefoot.
- Decontaminate clothing by washing with soap and water.
- If bitten or stung, seek medical attention immediately. (Only doctors can treat some stings or bites.)

HOT AND COLD WEATHER INJURIES

Heat is a medical threat for soldiers deployed to this region, especially during the early phase of deployment; acclimatization is critical. Heat is more of a threat than cold; however, cold injuries may be a threat in the mountainous areas. The effects of cold weather are more severe in high mountainous areas due to reduced oxygen and lower air pressure. When deploying to the mountainous regions of Thailand, check with your

unit on the requirement for packing the extended cold weather clothing system. See [GTA 08-05-062](#) for appropriate countermeasures.

RESPIRATORY DISEASES AND SEXUALLY TRANSMITTED DISEASES

There is a risk of being exposed to the bacteria that causes [tuberculosis](#) (TB). Breathing in the bacteria that someone coughed or sneezed into the air spreads TB. Being exposed to the bacteria will cause a positive skin test even if you do not become sick. If you have a positive skin test, you may still be treated even if you have no symptoms.

[Sexually transmitted diseases](#), such as [gonorrhea](#), [chlamydia](#), [human immunodeficiency virus \(HIV\)](#)/acquired immune deficiency syndrome ([AIDS](#)) and [hepatitis B](#), occur throughout the region. Though the immediate impact of HIV /AIDS and hepatitis B on an operation is limited, the long-term impact on your individual health is great. Those deployed should see [GTA 08-05-062](#) for appropriate countermeasures and guidance regarding the hepatitis B vaccine. **Anyone deployed to the region should not have unprotected sex and should not share needles.**

TOXIC INDUSTRIAL CHEMICALS AND MATERIALS

When deployed to any area, you may face health risks from industrial chemicals and materials as a result of activities by terrorists or warring parties; accidents in industrial facilities; accidental exposure to toxic waste; or improper handling or disposal of hazardous material with which our own forces deploy. When deployed to Thailand, the greatest short-term health risks are associated with water contaminated with raw sewage or runoff containing fecal germs. There are also short- and long-term health risks from air pollution in urban areas and water containing industrial waste.

See [GTA 08-05-062](#) for appropriate countermeasures. How much the environment will affect your health depends on many things. Consult your medical authority for additional information.

HIGH ELEVATIONS

High altitude illness is a significant threat in the mountains. Military operations occurring at elevations over 6,000 feet can seriously affect unit and individual effectiveness. Serious illness or death can result if you ascend rapidly without allowing yourself to get used to the change in altitude. Remain well hydrated; your body needs more water at higher altitudes.

- When deployed to high mountain and high elevation urban areas, watch for the common symptoms of mountain sickness: headache, nausea, vomiting, dizziness, fatigue, irritability, and coughing. Seek medical attention immediately if you experience any of these symptoms.
- Pyridostigmine bromide tablets may increase the chance of dizziness or fainting during the first 24 hours at high altitude if you are not acclimatized.
- Lower oxygen levels at high altitudes ("thin air") combined with the heavier work requirements when wearing mission-oriented protective posture (MOPP) gear can

increase your risk of high altitude illnesses. When wearing MOPP gear at higher altitudes, you may require more time and concentration to perform assigned tasks.

- For appropriate countermeasures during high altitude operations, see [GTA 08-05-062](#) and [GTA 08-05-060, A Soldier's Guide to Staying Healthy at High Elevations](#).

HEARING PROTECTION

It is essential that you use properly fitted [hearing protection](#) during military operations. Exposure to high-intensity noise may cause hearing loss that can adversely affect your combat effectiveness and individual readiness. Good hearing is essential to mission success. If you are a dismounted soldier, the [Combat Arms Earplug](#) (NSN 6515-01-466-2710) will protect you from the impact noise of weapons fire while only slightly interfering with voice communications and detection of combat sounds such as vehicle noise, footfalls in leaves, and the closing of a rifle bolt. Noise muffs or standard earplugs are very effective at preventing noise-induced injury, although they are not as effective as the Combat Arms Earplug in preserving your ability to hear important mission-related sounds. If you are a member of vehicle or helicopter crews, your combat vehicle crew or aircrew helmets have built-in hearing protectors.

ORAL HEALTH

[Dental disease](#) is a common problem during deployments because it is not easy to take care of your mouth. You should deploy with toothbrush, dental floss, and fluoride toothpaste. You should brush your teeth twice a day and floss your teeth once a day. This is the best way to prevent gum disease, trench mouth and tooth decay. In difficult tactical environments, teeth should be brushed at least once a day. Seek medical attention immediately at the onset of any dental problems. You are more vulnerable to other diseases when your mouth is not healthy.

FIELD SANITATION TEAM

Each company-sized unit has a Field Sanitation Team (FST) whose members are trained (40-hour course) and fully equipped according to [AR 40-5](#), [FM 4-25.12](#), and [FORSCOM REG 700-2](#). Know who the members of your FST are, and know how they can assist in preventing medical threats to your health. Become familiar with FST equipment and training.

PRE-DEPLOYMENT HEALTH INFORMATION

[Complete the Pre-Deployment Health Assessment \(DD FORM 2795\)](#) to assess your state of health before deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.

You will not have access to your health care record during the deployment. The Adult Preventive and Chronic Care Flowsheet ([DD FORM 2766](#)) will be used as your

deployment health record. This document will include information on all your immunizations, any medications you are currently taking, and any ongoing medical problems that you may have. When you go through readiness processing, ensure that all appropriate information is documented on your DD FORM 2766. When you return home, this information will be placed in your regular health record.

INFORMATION ABOUT YOUR HEALTH CARE WHILE DEPLOYED

It is important that you know where to seek health care while deployed. This may or may not be through the same channels as your home station. Ask your chain of command for more information.

While deployed, you must maintain your health and seek care whenever an illness or injury affects your work. Your unit is depending on you. It is always better to seek care early so that your problems can be documented appropriately and taken care of immediately. Early treatment also helps to prevent the spread of disease to others in your unit.

POST-DEPLOYMENT HEALTH INFORMATION

[Complete the Post-Deployment Health Assessment \(DD FORM 2796\)](#) to assess your state of health after deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.

If you become sick after you return home, tell your physician that you were deployed.

Complete any medications as directed, and receive follow-on medical care/tests as directed.

Contact your Preventive Medicine or Medical Support Unit for more information.



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